

EXHIBIT AZ

FILED UNDER SEAL

Player Grouping

The Sonos Wireless HiFi System allows customers to simultaneously play the same song, or different songs, on up to thirty-two Sonos players in a household, provided that all of the products within the household are confined within the same IP subnet.

The Sonos Wireless HiFi System is unique in that it allows users to dynamically group together two or more players to play the same song in synchrony. The resulting group can be controlled much like an individual player using any Sonos controller. For example, the group volume can be raised and lowered, and audio playback (i.e., play, pause, next track, etc.) can be controlled. This requires that each Sonos product have access to the audio data. In the Sonos architecture, this is achieved by selecting a lead player, called the group coordinator, to distribute the audio data to the other group members.

Group membership can be changed on the fly, without audio interruption, by adding and removing players from groups without restriction. This flexibility is achieved by a dynamic hand off of the group coordinator role. To ensure the hand off is free from audio interruptions, both old and new group coordinator access the same content simultaneously for a limited period of time.

Sonos Player Group

A **Sonos Player Group** (or Group for short) is a set of one or more Sonos players temporarily linked together to play the same audio at exactly the same time. Sonos players can be dynamically grouped and ungrouped, even while playing audio. Every Sonos player is in exactly one Sonos player group at any given time. A single Sonos player by itself is still considered a Sonos player group that contains one Sonos player.

There are certain Sonos devices, such as the BRIDGE and the SUB, that cannot play audio by themselves. These Sonos players are called **invisible** and are hidden from the user interface of Sonos control applications.

The Group Coordinator

Each player group contains one Sonos player called the group coordinator. The **group coordinator** is the player that is currently in charge of the music playback for the group. See "Managing Groups," below, for details.

Music Playback on the Sonos Controller

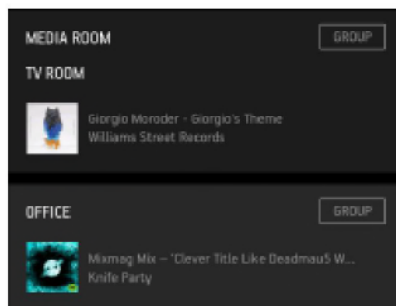
The **Rooms menu** on the Sonos controller shows all of the **visible** Sonos players in a household and how they are grouped. Music playback is controlled on a group by group basis; you can't play music on just one player in a group unless you first ungroup that player. You can change the grouping of Sonos players on the Sonos controller.

Because players can be grouped and ungrouped dynamically while music is playing, the group coordinator for a group can change at any time. When the group coordinator for a group changes, the Play To Sonos app must disconnect from the old group coordinator and connect to the new group coordinator.

Managing Groups

A player has one of two roles in a group: a group member or a group coordinator. Each group has exactly one group coordinator and zero or more members (a player could be a group coordinator of a group containing only itself).

For example, in the screen shot below, the first group consists of two players, MEDIA ROOM and TV ROOM, and the second group consists of one player, OFFICE:

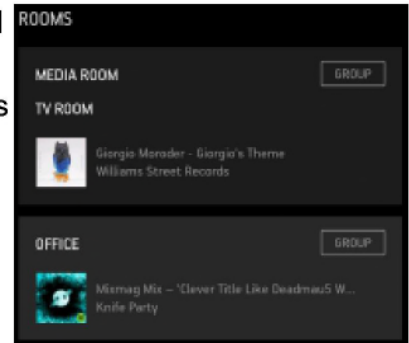


Changing a group coordinator is an expensive operation. For example, group A has a group coordinator player with three member players and group B has one player. If you move the group coordinator player from group A to group B, one of the member players in group A will become the new group coordinator. This process will continue if you move the new group coordinator player to a different group. Therefore, to minimize expensive topology changes, group members should be moved before group coordinators.

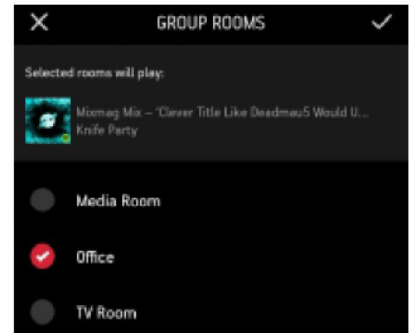
Adding or Removing Multiple Players

The Sonos Controller allows users to simultaneously add players to and remove players from groups.

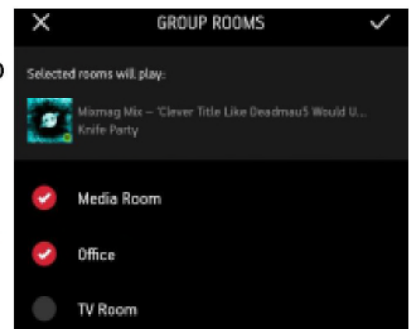
For example, in the screen shot to the right, the MEDIA ROOM and TV ROOM players are grouped together (players are called rooms on Sonos controllers). The OFFICE player is in its own group. The user can press **GROUP** in the OFFICE group to add players to that group.



The OFFICE player is the group coordinator of this group, because there is only one player in the group.



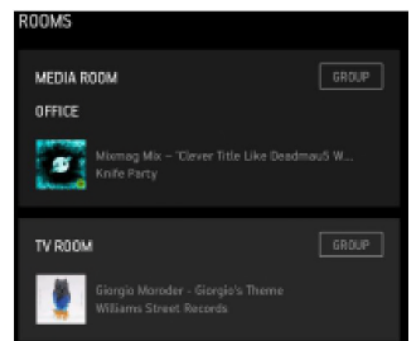
The user selects MEDIA ROOM. This removes the MEDIA ROOM player from the group with the TV ROOM and adds it to the OFFICE group.



If the MEDIA ROOM player is the group coordinator of its current group, once it is removed, the TV ROOM becomes the new group coordinator.

The user selects the check box at the top right to make the changes.

The MEDIA ROOM and OFFICE players are now shown as part of the same group and the TV ROOM is a stand-alone group.



Player Grouping

Sonos players can be grouped if they satisfy all of the following requirements:

- They are in the same Sonos household.
- They are running firmware that is compatible (currently, each player firmware release is incompatible with the next release).
- Neither player is invisible according to the ZoneGroupState data.

You must add or remove Sonos Players to a household with a Sonos controller.

Player Groups use the following string identifiers to identify various objects within a Sonos system. These **Unique IDs** are immutable (they never change) for a given instance. Control applications should treat these identifiers as opaque and should not make assumptions about their format or try to parse information out of these identifiers:

- **Household ID**—A randomly generated unique ID to identify a Sonos household. Every Sonos household has a Household ID.
- **Group ID**—A universally unique ID to identify the player group. This group ID persists as long as the player group logically exists. When a Sonos player is removed from a group, it becomes a new group containing just itself, and is thus assigned a new group ID. When a Sonos player is power-cycled, it generates a new group ID for itself.
- **UUID**—A universally unique ID (UUID), which UPnP calls the Unique Device Name or UDN. Every Sonos player has a UUID.

General rules for groups:

- Each Sonos player has a UUID.
- Every Sonos player is in exactly one player group at any given time.
- Each player group has a unique group ID which does not change when players are added to or removed from the player group.
- Each player group has a group coordinator, which is one of the players in the group.